In the Specification

On page 1, amend paragraph 0003 as follows:

[0003] For effective and accurate performance, a bar code scanner depends upon focused optics and scanning geometry. Fixed scanners frequently employ a rotating polygon mirror which directs a scanning beam toward a mirror array for generating a desired scan pattern. One type of fixed bar code scanner positions a scan engine in a base with a scan window oriented in a horizontal plane. One such scanning system is disclosed in United States Patent No. 5,073,702 in which a scanning beam is reflected off a mirror array which has a plurality of mirrors arranged in a generally semicircular pattern. The scanning beam reflecting off each of the mirrors has a ~~has~~ vertically upward component thereby passing through the window/aperture. Objects to be scanned are passed over the window with the bar codes oriented in a generally downward direction.

On page 1, amend paragraph 0004 as follows:

[0004] In another scanner orientation, the scan engine is housed in a vertical tower with the scan window oriented in a vertical plane. In such a vertical scanner, generally all the outgoing scan beams that come out sidewards also have an upward vertical component. Objects to be scanned are passed in front of the window with the bar codes oriented in a generally sideward direction.

On page 5, amend paragraph 0036 as follows:

[0036] The beam generators 50, 60 are provided with an internal dithering mechanism whereby the reading beams 51, 61

exiting the beam generators are dithered or pivoted over an angle θ in a plane generally parallel to the axis of rotation of the facet wheel 20 thus striking the facets of the polygon mirror 15. This dithering of the beams 51, 61 prior to being scanned by the facets of the facet wheel 20 creates a greater variation in scan line coverage. Fig. 1 illustrates a scan pattern 23 produced when the dithering mechanisms of the beam generators 50, 60 are inactive and Fig. 2 illustrates a scan pattern 25 produced when the beam generators 50, 60 are active. Figs. 5 and 6 illustrate ~~the~~ a portion of the scan pattern 25 generated only by the pattern mirrors 34, 36, 38 and 44.

On page 7, amend paragraph 0045 as follows:

[0045] Scanning is achieved when magnetic core 134, attached to flexible suspension 130 (i.e., a flat spring), is set in motion by applying alternating current to coil 136 and moveable mirror 116 participates in the motion of core 134 thereby causing outgoing beam 120 to be scanned.

On page 8, amend paragraph 0047 as follows:

[0047] Figs. 13-15 illustrate a preferred beam generator 150 suitable for use in the various embodiments described herein. The beam generator 150 is disposed eccentrically or offset from the center of the collection lens 152. The beam generator 150 includes a housing 156 into which the VLDM is mounted. The lens assembly 160 is also mounted within the housing 156 in front of the VLDM 158 for focusing the laser beam 162 generated by the VLDM 158. The beam 162 is directed along a first path 163, which is generally parallel to the axis of the collection lens 152, toward a routing mirror 164 which is disposed at a 45°

thereby reflecting the beam 162 by 90° along a second path 165 and onto the dithering mirror 166. The dithering mirror 166 then~~which~~ reflects the beam 162 along an outgoing path 167.

On page 11, amend paragraph 0059 as follows:

[0059] Fig. 21 illustrates a system 300 in which ~~is~~a single laser diode 302 produces an optical beam 304 onto a beam splitter 306. The beam splitter 306 divides the beam 304 reflecting a portion of the beam, first reading beam 304a, onto the facet wheel 310 and transmitting a portion of the beam, second reading beam 304b, which is folded by a fold mirror 308 and directed onto the facet wheel 310. A first beam dithering mechanism 312 is positioned in the path of the first reading beam 304a upstream of the facet wheel 310 and a second beam dithering mechanism 314 is positioned in the path of the second reading beam 304b upstream of the facet wheel 310. The dithered reading beams 304a and 304b are scanned across pattern mirrors 315. Return signal is retrodirectionally collected off the polygon mirror 310 with separate signals collected by collection optics 320/322 onto detectors 321, 323. The redirecting cones and band pass filters are not illustrated in this figure. In the first processing channel or circuit, the light collected at detector 321 from reading beam 304b is processed by an analog signal processor 325 and then sent to the digital signal processor 330. Similarly, return signal collected by detector 323 from the reading beam 304a is processed by an analog signal processor 327 and then converted by digital processor 332.

On page 12, amend paragraph 0061 as follows:

[0061] Fig. 22 illustrates another scanning system 400 with processing circuit schematics suitable for use in embodiments illustrated above. In the system 400, a laser diode 402 produces an optical beam 404 which is split by a beam splitter 406 reflecting a portion of the beam to produce a first reading beam 404a and transmitting a second portion to produce a second reading beam 404b. The first reading beam 404a is directed through a first beam dithering mechanism 412 which projects a dithered beam 404a onto the polygon mirror 430. The second reading beam 404b is reflected by a fold mirror 408 and directed through a second beam dithering mechanism 414 which projects a dithered reading beam 404b onto the polygon mirror 430. The polygon mirror 430 scans the dithered reading beams 404a, 404b across a plurality of pattern mirrors 420 to produce a desired scan pattern. Return signal is collected retrodirectionally by collection optics 435, 440 as in the previous embodiment such that return signal originating from reading beam 404a is collected onto a first detector 442 and return signal originating from upper reading beam 404b is collected onto second detector 437. The redirecting cones and band pass filters are not illustrated in this figure.

On page 14, amend paragraph 0067 as follows:

[0067] Fig. 23 also illustrates a controller 580 electrically connected to the dithering mechanisms 512, 514. By controlling the operation of the dithering mechanisms, the scan patterns generated by the system may be varied. In its simplest form, deactivating (i.e. turning ~~on~~off) the dithering mechanisms 512, 514 would generate one scan pattern, for example scan pattern 23

in Fig. 1, and activating (i.e. turning on) the dithering mechanisms 512, 513 would generate a second scan pattern, for example scan pattern 25 of Fig. 2.

On page 21, replace the Abstract with the following:

A method of and a system for generating a dense pattern of scan lines. In a preferred configuration, a laser beam is directed into an inline beam dithering mechanism which dithers the beam over an angle parallel to the axis of rotation of the rotating facet wheel. The combination of the dithering mechanism and the scanning motion of the rotating facet wheel creates a dense scan pattern. Return light is retrodirectively collected ~~and~~ by a collection element such as a collection lens onto a detector. A beam redirector such as a cone-shaped device having openings on both ends and a reflecting internal surface is disposed between the collection lens and the detector to redirect off-axis spot onto the detector. The system and method ~~is~~are applicable to both single and multiple beam systems and single and multiple window scanners.